



Waste to Energy: Compostable Products and Anaerobic Digestion

Request for Proposal

Issue Date: March 27, 2013

**Application Due Date: April 12, 2013
05:00 PM CST**

Wisconsin State Energy Office

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Background

The Wisconsin State Energy Office (SEO) announces a Request for Proposals to purchase equipment to grind, or macerate, organic waste mixed with compostable products to create renewable energy from the anaerobic digestion process.

The processing equipment will be used as a demonstration for pilot- or commercial-scale anaerobic digester(s). This grant will act as part of research conducted to address the feasibility to macerate compostable consumer packaging and single-use items to produce methane gas at a pilot or commercial scale anaerobic digestion facility using co-products, by-products or waste from these sources as feedstock.

The amount of funds available to fund proposals is approximately \$43,000.

The program must be completed within six (6) months.

Objectives

Primary Objectives

1. The objective of this program is to provide cofunding for the purchase of grinding equipment to process waste organics and compostable items as co-feedstock for anaerobic digestion. The equipment may be sited at a facility producing or accepting organic waste. The equipment may be portable and modular in design, and applicants may propose more than one site location.
2. To create a demonstration program for continued pre-commercialization testing.
3. Purchase and install pre-processing equipment to grind compostable products and organic waste
4. Implement a *Process Validation Program* at one, or more, process validation sites to:
 - collect organic waste mixed with compostable material
 - process mixed waste for optimum methane generation
 - test compostable products and organic waste at pilot or commercial scale to optimize renewable gas generation for anaerobic digesters
 - test biodegradation performance of the compostable products in the anaerobic environment
 - Test performance of compostable products in aeration windrow environment.
5. Promote the site location as a demonstration site.

Secondary Objectives

1. Establish partnerships with organic waste and compostable product feedstock supply partners to proactively change waste diversion behavior through demonstration and outreach, including but not limited to:
 - marketing supported by the SEO,
 - potential education modules geared at children (K-12), and
 - demonstration of the renewable energy systems.
2. Develop working relationship with existing Wisconsin organizations promoting waste diversion, renewable energy, bioenergy and bioproducts, energy efficiency, decreased energy consumption and behavior change (e.g. KEEP, Northeast Food Waste Task Force,

Wisconsin Institute for Sustainable Technology, Cool Choices, Sustain Dane, Wisconsin Climate Change Action Initiative, 7 Rivers Economic Alliance).

Deliverables:

1. Purchase and install processing equipment for one or more anaerobic digestion sites.
2. Document and describe the diversion program success and challenges.
3. Report how contamination is handled and the extent to which it presents processing challenges.
4. Develop relationships with supply chain and technology companies to create a lasting Process Validation Program.
5. Prepare and deliver a final project report by December 2, 2013

Award Information

6. **Type of Award** – The SEO anticipates making one (1) grant award subject to the rules and data collection requirements set forth by the State of Wisconsin and U.S. Department of Energy.
7. **Maximum Award Size** – The SEO will award a maximum of approximately \$43,000 under this announcement.
8. **Expected Number of Awards** – The SEO will make one (1) award under this announcement.
9. **Period of Performance** – Awards will be for a period of six (6) months.

Eligible Applicants

Eligible applicants must be:

- Located in, and conducting business in, Wisconsin,
- Be a for-profit businesses,
- Able to demonstrate access to anaerobic digestion unit(s) capable of processing high solid organic waste with compostable products,
- Able to demonstrate an ability to conduct research using an anaerobic digestion system at pilot or commercial scale,
- Able to prove aerobic and industrial composting capability,
- Willing to collaborate with existing SEO partners and compostable material and organic waste generators (e.g., City of Madison curb side collection program, restaurants, public/private educational site), and
- Able to conduct required activities throughout the life of the grant.

Ineligible applicants are any, and all, non-profit and public entities due to funding source restrictions.

Wisconsin for-profit businesses are eligible to apply as the lead applicant. The SEO encourages lead applicants to create partnerships with industrial, commercial and academic units for

sustaining research activities to create new renewable energy pathways. Project partners may be non-profit and/or public entities.

The SEO suggests lead applicants seek upstream and/or downstream partners participating in waste diversion programs; or, are able to quickly assimilate to a Process Validation Program outlined in Objectives #2.

Contracts or agreements between the awardee and partner(s) should be negotiated independently of this grant.

The objective of this program is to seed a privately funded program at a site location that may be used for demonstration, and could be replicated at other anaerobic digestion locations.

Eligible/Ineligible Expenses

Funding may be used to support efforts relevant to the development of a Process Validation Program that meets the objectives described earlier in this announcement. Up to \$15,000 of funding may be used for staff time and associated expenses, including personnel, fringe, travel, supplies, equipment, training and outreach, and other project related expenses. This list is not intended to be exhaustive and other expenses may be allowable.

The balance of the grant funding must be used to purchase and install processing equipment to grind organic waste mixed with compostable products to fulfill the requirements for the process validation project.

Ineligible expenses: Lobbying expenses are ineligible. Money may not be used to purchase, install or build: an anaerobic digestion facility- either pilot or industrial scale; or, site and install a compost site. All expenses will be reviewed and approved by the SEO prior to reimbursement.

Expenses incurred before the grant contract is signed will not be eligible for reimbursement. Budgets will be reviewed prior to an award (via the Budget Justification Form) and are subject to negotiation with the SEO. The contract is effective on the date signed by the Division Administrator.

Cost-Sharing

There are no cost-sharing requirements under this program, but leverage dollars are encouraged and will be factored in to the proposal evaluation process. Leverage dollars are any non-award monies contributing to the efforts outlined in the project narrative including in-kind staff time and supplies.

Application Guidelines

Please submit one (1) electronic copy of the application document in portable document format (.PDF) to the SEO general email at SEO@wisconsin.gov. Please use the following outline to guide your application:

- 1. Cover Page (attached)**

- 2. Project Narrative:**

The narrative should be organized with the following headings:

- Introduction to the Project

- Background on the Applicant, and its Qualifications
- Curriculum Development Overview, Plan and Goals
- Implementation Overview, Plan and Goals
- Evaluation/data Collection Overview, Plan and Goals
- Anticipated Outcomes

All goals should be time-sensitive and accomplished during the grant period. Applications selected for funding will use the goals described in this section to evaluate the progress and success of the project.

Applicants should consider the interplay between complex factors such as anaerobic digestion design, food consumption and waste generation of selected sites, use of single-use product(s) and packaging waste, contamination, environmental impacts of diverting waste from landfill, and the role an individual plays in efforts to divert waste from landfill.

While development of a validation process program should address Wisconsin's ability to divert organic waste mixed with compostable products, the primary target audience of the validation process program is the food and beverage industry, plastic manufacturers, waste haulers, large generators of organic waste, and municipalities.

The project narrative must not exceed five (5) pages, including table of contents, charts, graphs, maps, photographs, and other pictorial presentations. When printed, the project narrative must use standard 8.5" by 11" paper with 1-inch margins (top, bottom, left, and right).

EVALUATORS WILL ONLY REVIEW FIVE PAGES.

The font must not be smaller than 11 point. Do not include any internet addresses (URLs) that provide information necessary to review the application. Narrative should thoroughly address the review criteria in the Application Review Section below.

3. Budget Justification Form (attached):

The applicant must justify the costs proposed in each Object Class Category/Cost Classification category (e.g., identify key persons and personnel categories and the estimated costs for each person or category; provide a list of equipment and cost of each item; describe purpose of proposed travel, number of travelers and number of travel days; list general categories of supplies and amount for each category; and provide any other information you wish to support your budget).

The Budget Justification is not considered in the page count.

4. Personnel or organizational support

List all personnel or organizations and provide summary of experience of who will work on the grant. If listing organizations that will support the project please provide a summary of relevant work. Include activities and their experience as it relates to the proposed project. Establish a key staff member to coordinate grant activities and serve as a point of contact for this project.

Personnel and organizational documents are not considered in the page count.

5. Letters of Reference (optional, but considered if submitted).

Letters of Reference are not considered in the page count.

Application Due Date

Applications must be received by Friday, April 12th, 2013 05:00 PM CST. Applicants are encouraged to submit their application electronically as a portable document format (.PDF). Applicants may hand deliver applications to the Wisconsin State Energy Office located in the Wisconsin Department of Administration building at 101 E Wilson St., 6th Floor, Madison, WI.

APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

Please direct all questions to the State Energy Office email at the address below. The SEO will accept questions through Friday April 12th at 5:00 PM CST. The SEO will reply by email, and will post questions and responses to the SEO website as they are received.

SEO Email: SEO@wisconsin.gov

SEO Website: www.stateenergyoffice.wi.gov

Application Review Information

- 1. Initial Review Criteria** - Prior to a comprehensive merit evaluation, SEO will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement.
- 2. Merit Review** - SEO will select a review panel to evaluate applications using the following factors. The SEO will then apply a rating, or score to the application based on the review.

Overall Evaluation Factors:

- Technical Merit: All applications must provide sufficient information to demonstrate the applicant's technical capability to successfully undertake the proposed work.
- Planning and Capabilities: Provides evidence of a clear and comprehensive plan with a likelihood of achieving success.
- Relevance of the Application: Application must satisfactorily address Program Objectives.
- Complete and detailed budget: All proposals must also provide a complete and detailed budget, which includes supporting narratives.
- Overall Project Risk/Likelihood of Success: Projects will be evaluated based on the overall likelihood of the project achieving the primary objectives.

Specific Evaluation Factors:

- access to anaerobic digestion unit(s) that are able to measure biogas quality and quantity
- access to aerobic composting capability
- able to analyze digestate and compost relevant to industrial standards for anaerobic and aerobic facilities

- Access to organic waste diversion programs and ability to co-mingle compostable materials as an energy feedstock
- Applicants must also agree to submit quarterly, and on-request, reports to the SEO on the activities and progress of the grant.
- Other Information – Applicants may provide additional supplementary information they believe demonstrates the proposal meets the application criteria as set out in the program description.

Review and Selection Process

Grant applications are due by Friday, April 12th, 2013 05:00 PM CST.

- 1. Selection** - The SEO will consider the merit review recommendations of the review panel to make the final award decision.
- 2. Discussions and Award** - SEO may enter into discussions with a selected applicant for any reason deemed necessary, including, but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) SEO needs additional information to determine that the recipient is capable of complying with the requirements or (4) special terms and conditions are required. Failure to satisfactorily resolve the issues identified by the SEO, or US DOE, will preclude any award to the applicant.
- 3. Anticipated Notice of Selection and Award Dates** - SEO anticipates notifying applicants selected for award by April 18th and making awards by end of April.

Contract Terms and Funding

A contract between the grantee and the SEO will cover the scope of work, timetable and budget. Contracts cover a six (6) month period after the date Division Administrator signs the contract. Grant payment will be distributed on a reimbursement basis, in accordance with State of Wisconsin purchasing rules.

Contact Information

Please direct any questions and submit applications by email or mail to:

SEO@wisconsin.gov

Or mail to:

Wisconsin State Energy Office
c/o RFP Applicant
PO Box 7868
Madison, WI 53707-7868